REMARKS

Claims 30-38 are pending in the application.

Claim Rejections 35 USC 102

Claims 30, 33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Meidan (US Patent 5,276,907). With respect to claim 30, the Examiner states that Median discloses the claimed invention:

"A method of communicating comprising the steps of:

modifying at least one antenna's beam width (see col. 6 lines 26-30) based on received radio resource allocation instructions for signals to be transmitted and/or receive [sic] by the at least one antenna (col. 6 lines 21-45)."

Applicant respectfully traverses the Examiner's reading of Meidan. Meidan discloses techniques for dynamic distribution of a communication channel load in a cellular radio communication system. The specific text in Meidan to which the Examiner refers to (column 5, lines 21-45) discloses adjusting the beamwidth of an antenna for the purpose of distributing *channel load* in a communication system. Channel load is not clearly defined in Meidan but appears to represent the load of a sector of a cell site of a communication channel in a radio communication system. In sharp contrast, Applicants invention as recited in independent claim 30 discloses a method for modifying a beam width based on *received radio resource allocation instructions* for signals to be transmitted and/or received by an antenna. The current application defines radio resource allocation as including beam pointing, amount of power, beam width, duration, etc., for each beam. (See page 13, lines 11-12 of the current application). The term "radio resource" as used in the present invention represents a **resource** of a communication system that can be adjusted or allocated by the system, whereas in Meidan, channel load represents a **condition** of a communication system. It is clear that adjusting a beam width for distributing a **channel load**, in Meidan, is not the same as adjusting a beam width based on received **radio resource allocation** instructions of the present invention.

Thus, Meidan fails to disclose the features of claim 30 of the present application for at least these reasons.

The Examiner further rejects dependent claims 31-32 under 35 U.S.C. 102(b) as being anticipated by Meidan. The Examiner states that Median "discloses radio resource allocation instructions comprise information related to data rate of the signals (see col. 2 lines 35-44), SNR of the signals (see col. 5 lines 25-39), power level of the signals (see col. 8 lines 1-30), location information of a mobile in communication with the at least one antenna and quality of service needs of a user of the mobile (see col. 6 line 55 through col. 7 line 4)."

Applicant respectfully traverses the Examiner's reading of Meidan for the following reasons. First, with respect to information related to the data rate of signals, the Examiner makes a specific text reference to the Background Section of the Meidan patent (column 2, lines 35-44) which mentions, in general terms, that interference may have an effect on the limit at which digital data may be transmitted without error over a channel. Meidan mentions the data rate of signals in the Background Section, and discloses adjusting beam width for the dynamic distribution of channel load in the Summary Section; however, it fails to disclose a relationship between beam adjustment and the data rate of signals. In particular, it does not mention modifying the beam based on the data rate of signals. In contrast, Applicants invention discloses a technique that includes modifying a beam width based on received radio resource allocation instructions which include the data rate of signals. That is, Meidan fails to disclose a technique of modifying a beam width **based** on information related to the **data rate of signals**, as recited in claim 31. Thus, Meidan fails to disclose the features of claim 31 of the present application for at least these reasons.

Second, with respect to information related to SNR of signals, the Examiner again makes specific reference to the Background Section of Meidan (column 5, lines 25-39). It mentions the general concept of SNR and that geographic separation needed to ensure adequate SNR limits the capacity of a communication system. Like the discussion above

related to data rate of signals, Meidan fails to mention a connection between beam adjustment and SNR. In contrast, the present invention modifies a beam width based on ***received radio resource allocation instructions*** which include SNR of signals. Meidan mentions SNR in the Background Section, and mentions, in the Summary Section, adjusting a beam width for distribution of channel load. However, if fails to disclose a relationship between beam adjustment and SNR of signals. That is, it fails to disclose a technique of modifying a beam width **based** on instructions that include SNR of signals, as recited in claim 31. Thus, Meidan fails to disclose the features of claim 31 of the present application for at least these reasons.

Third, with respect to information related to the power level of signals, the specific text in Meidan to which the Examiner refers (column 8, lines 1-30) discloses reducing the output power from an antenna. In contrast, Applicants invention modifies a **beam width** based on received radio resource allocation instructions which include the **power levels of signals**. That is, in Meidan, the **power level** of an antenna is adjusted, whereas in the present invention, a **beam width** of an antenna is modified based on the **power levels** of signals. Thus, Meidan fails to disclose the features of claim 31 of the present application for at least these reasons.

Fourth, with respect to information related to the location information of a mobile in communication with an antenna, the specific text in Meidan to which the Examiner refers (column 6 line 55 through col. 7 line 3) mentions that the location of a subscriber unit (mobile unit) in an area may impact the channel load of a cell site. However, it does not disclose a technique that modifies a **beam width** based on received radio resource allocation instructions which include the location of a mobile. That is, in Meidan, the beam width of an antenna is adjusted based on **channel load** caused by the presence of mobile units in cell sites, whereas in the present invention, a beam width of an antenna is modified based on **location information of mobile units**. Thus, Meidan fails to disclose the features of claim 31 of the present application for at least these reasons.

Thus, claims 30-33 and 35 are not anticipated by the cited reference and should be allowable for at least the reasons provided above.

Allowable Subject Matter

The Examiner has objected to claims 34 and 36-38 as being dependent upon a rejected based claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Applicant thanks the Examiner for the allowable subject matter, however, decline to rewrite the objected claims in independent form for the reasons mentioned above.

Request for Reconsideration pursuant to 37 CFR 1.111

Having responded to each and every ground for objection and rejection in the Office Action mailed February 26, 2004, Applicant requests reconsideration in the instant application pursuant to 37 CFR 1.111 and requests that the Examiner allow claims 30-33 and 35 and pass the application to issue. If there is any point requiring further attention prior to allowance, the Examiner is asked to contact Applicants' counsel who can be reached at the telephone number listed below.

Respectfully,
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